

Claims

What is claimed is:

1. An electric compressor comprising:

a compression mechanism for sucking, compressing and

5 discharging fluid;

an electric motor for driving said compression mechanism;

a housing for containing said compression mechanism and
said electric motor; and

an inverter for driving said electric motor,

10 wherein an inverter case of said inverter is externally
attached to an end wall of said housing in an axial direction,
on the side of a suction port to said compression mechanism,

an intake passage for leading fluid returned from the
outside into said suction port is formed in said inverter case,

15 and said intake passage has a thermal binding portion for
thermally binding said intake passage to said inverter.

2. An electric compressor comprising:

a compression mechanism for sucking, compressing and
discharging fluid;

20 an electric motor for driving said compression mechanism;

a housing for containing said compression mechanism and
said electric motor; and

an inverter for driving said electric motor,

25 wherein an inverter case of said inverter is externally
attached to an end wall of said housing in an axial direction,

on a discharge side from said compression mechanism, said end wall having a suction port to said compression mechanism,

an intake passage for leading returned fluid into said suction port is formed in said inverter case, and said intake passage has a thermal binding portion for thermally binding said intake passage to said inverter and an air layer between said intake passage and said end wall.

3. The electric compressor according to claim 1 or 2, wherein said thermal binding portion is provided so as to be adjacent to the whole area of at least a high heating portion of said inverter.

4. The electric compressor according to claim 1 or 2, further comprising mounting legs for mounting said electric compressor in such a manner that the axis of said housing becomes horizontal or slanting, the mounting legs being provided in the housing on the side out of an inverter attachment portion.

5. The electric compressor according to claim 1 or 2, wherein said housing is divided into an inverter attachment side and the other side in an axial direction.

6. The electric compressor according to claim 1 or 2, wherein a connection pin of a compressor terminal for connecting said electric motor to the outside is directly connected to a circuit board of said inverter.

7. The electric compressor according to claim 6, wherein

said compressor terminal has a seal portion in a connection port of said inverter case, connected to the inside of said housing.